MarqMetrix All-In-One Process Raman Analyzer

Enabling accurate, real-time results for process monitoring

System overview

The Thermo Scientific™ MarqMetrix™ All-In-One Process Raman Analyzer is a compact and portable Raman spectrometer. This all-in-one system is purpose-built for rapid deployment, ease of use, and scalability in markets where time-to-results is critical.

The MarqMetrix All-In-One Process Raman Analyzer offers:

- Analysis without sample preparation, delivering Raman spectral results in real time

- Easy setup and deployment by non-Raman spectroscopists

- Nondestructive workflows to protect precious samples

- Noninvasive handling to minimize contamination of samples

- Small footprint for convenient deployment

- Factory calibration for hardware stability and portability

With the MarqMetrix All-In-One Process Raman Analyzer, businesses can conduct real-time, nondestructive, and immediate analysis without the need for sample preparation. This analyzer makes precise and accurate measurements simple to execute and understand with its one-button hardware and easy-to-use software.

The MarqMetrix All-In-One Process Raman Analyzer is designed for out-of-the-box use, enabling you to collect highly accurate Raman measurements in less than 15 minutes. Pack this analyzer in a protective case and take it to the point of need, as its factory calibration ensures continuous and precise analysis on the go. The MarqMetrix All-In-One Process Raman Analyzer can be easily integrated into your existing process and eliminates the need for costly technical expertise.
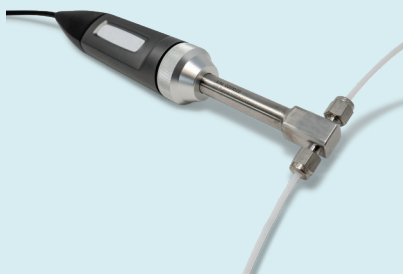
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Process monitoring

With a small footprint and lower cost, the MarqMetrix All-In-One Process Raman Analyzer makes in-line process monitoring possible and enables you to make optimization decisions faster.

Flexibility to meet your needs

A comprehensive range of probes is available to seamlessly integrate your MarqMetrix All-In-One Process Raman Analyzer into almost any application.

Application versatility

Use the MarqMetrix All-In-One Process Raman Analyzer for different applications such as biopharmaceutical process analytical technology (PAT), and oil and gas production.

Software

Maximize the power of the MarqMetrix All-In-One Process Raman Analyzer with Thermo Scientific™ Lykos™ PAT Software – a remote control and monitoring software designed to simplify the complexities of chemometrics with features including:

- Real-time display, storage, and export of process monitoring results

- Remote control and monitoring of the MarqMetrix All-In-One Process Raman Analyzer from outside of the lab

- Simplified use and intuitive workflow for non-Raman spectroscopists

- Control of multiple MarqMetrix All-In-One Process Raman Analyzer from a central location

Service plans

Thermo Fisher Scientific offers several service plans designed to maximize productivity and optimize performance throughout the life cycle of your MarqMetrix All-In-One Process Raman Analyzer. Plans include exclusive service advantages such as:

- Unlimited technical support

- Depot repair services

- System compliance

- Consulting services

Speak with your sales representative to learn more aboutservice and support options.

Service plan coverage

Features	Premium	Essential
Technical support	✓	✓
Depot repair (labor and parts)	✓	✓
Software updates (fixes/security patches)	✓	✓
Shipping (to and from depot center)	✓	Return only
Qualification services (IQ/OQ/PQ)*	✓	
User training	✓	

* Installation qualification/operational qualification/performance qualification.

MarqMetrix All-In-One Process Raman Analyzer specifications

Performance	
Excitation wavelength	785 nm
Excitation power	100–450 mW
Detector	Thermally stabilized CCD (2-stage TEC)
Spectral range	100–3,250 cm^{-1}
Resolution	6.5 cm^{-1} average across spectral range
RMS dark noise	≤16.5 counts at 10 sec integration
Physical properties	
Size	H: 7.7 cm W: 25 cm D: 25 cm
Fiber conditions	FC/PC (both excitation and collection)
Probe	Fiber BallProbe™ probe
Mounting options	Stackable
Operating temperature range	15°C to 33°C
Operating humidity range	Noncondensing
Included peripherals	Wireless mouse, HDMI cable, and monitor
Product safety	
Safety features	Keyed laser interlock switch Electronic laser trigger
Laser certification	Class 3B laser device Reported to the FDA
Electrical properties	
Input voltage	90–264 VAC 50–60 Hz
Operating voltage	12 VDC, 2 A
Onboarding control system	
Software	MarqMetrix All-In-One Process Raman Analyzer Raman suite
Operating system	Integrated PC (Microsoft™ Windows™ 10 operating system)
Onboard storage	1RJ-45 Ethernet port 3 USB 3.0
Video output	1 DisplayPort™ 1.1 interface (VGA, DVI, or HDMI with adapter)

Product ordering information

Description	Cat. No.
MarqMetrix All-In-One Process Raman Analyzer	
MarqMetrix All-In-One Process Raman Analyzer with Thermo Scientific™ MarqMetrix™ Bioreactor BallProbe™ Sampling Optic	800-04541-01
MarqMetrix All-In-One Process Raman Analyzer with Thermo Scientific™ MarqMetrix™ Process BallProbe™ Sampling Optic	800-04551-01
MarqMetrix All-In-One Process Raman Analyzer with low-pressure Thermo Scientific™ MarqMetrix™ FlowCell™ Sampling Optic	800-04561-01
MarqMetrix All-In-One Process Raman Analyzer probe accessories	
Interchangeable Fiber Head standalone, no BallProbe	800-05431-01
Thermo Scientific™ MarqMetrix™ Bioreactor BallProbe™ Sampling Optic probe only	810-02851-01
MarqMetrix All-In-One Process Raman Analyzer, Thermo Scientific™ MarqMetrix™ Process BallProbe™ Sampling Optic, probe only	810-02841-01
MarqMetrix All-In-One Process Raman Analyzer, low-pressure Thermo Scientific™ MarqMetrix™ FlowCell™ Sampling Optic, flow cell only	810-02861-01

Learn more or request a demo at **thermofisher.com/marqmetrixAIO**

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